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EXAMINER

LEE, BRENITRA M

ART UNIT	PAPER NUMBER
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2889

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,234	VAN DER TEMPEL, LEENDERT	
	Examiner	Art Unit	
	BRENITRA M. LEE	2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-20 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the applicant's amendment filed on 27 January 2009.

In virtue of this amendment, claims 1-20 are currently presented in the instant application.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 6 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 4, line 3, states --such that the conductors are generally parallel--. The claim does not state which conductors, the row or column conductors, that are parallel to the longitudinal axis of the fiber. For examination purposes, the examiner will interpret the claim limitation as --such that the row conductors are generally parallel--.

4. Regarding claim 4, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examination purposes, the examiner will interpret the claim limitation as --slanted around the fiber and the row conductors are generally parallel--.

5. Regarding claims 6, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examination purposes, the examiner will interpret the claim limitation as --the length of the fiber and each pixel element is coupled --.

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6. Regarding claims 15, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examination purposes, the examiner will interpret the claim limitation as --along the length of the fiber and each light emitting element--.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-3, 5-9 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Roach et al. (U.S. Patent 6,274,978).

With respect to claim 1, Roach et al. discloses in Fig. 2-6 and 7A-7B an elongated display fiber (100) comprising a plurality of electro luminescent pixel elements (150) [see Col. 3 lines 30-34] distributed along a length of the fiber (100), an electrical conductor matrix that includes intersecting row (220) [see Fig 3; Col. 4, lines 42-43] and column (224) [see Fig 3] conductors that run along the length of the fiber (100); an electrical connection (232) between each intersection of the row (220) and column (224) conductors and a respective one of the electro luminescent pixel elements (150).

The recitation "to cause the electro luminescent pixel element to emit light through selective application of electrical signals to a respective combination of one of said row conductors and one of said column conductors" cited in lines 9-12 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with

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respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 2, Roach et al. discloses that the elongated display fiber (100) of claim 1, and further discloses the elongated fiber (100) including a respective electrical connection (140) [see Fig 3] to each of the row (220) and column (224) conductors brought to at least one end of the fiber (100).

With respect to claim 3, Roach et al. discloses all of the claimed subject matter as expressly recited in claim 1, and further discloses the electrical conductor matrix includes transparent conductors [see Col. 9, lines 7-10].

With respect to claim 5, Roach et al. discloses that the elongated display fiber (100) of claim 2, and further discloses the elongated fiber (100) wherein the fiber (100) is substantially a polymer fiber. [See col. 9, line 37].

With respect to claim 6, Roach et al. discloses in Figs. 2-3 that a display apparatus (10), and further discloses the elongated fiber (100) comprising at least one elongated display fiber (100) that includes a plurality of electro luminescent pixel elements (150) [see Col. 3 lines 30-34] distributed along a length of the fiber; an electrical conductor matrix that includes a first plurality of conductors (220) and a second plurality of conductors (224) that run along the length of the fiber and each pixel element (150) is coupled to a conductor of the first plurality of conductors (220) and a conductor of the second plurality of conductors (224) and a display driver (240)

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The recitation "that is configured to drive the first and second plurality of conductors to cause selected pixel elements to emit light" cited in lines 10-11 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

With respect to claim 7, Roach et al. discloses in Figs. 2-3 and 5, the display apparatus (10) of claim 6, and further discloses a display apparatus includes a plurality of the fibers (100) disposed in a side by side arrangement to define a viewing surface of the display apparatus (10).

With respect to claim 8, Roach et al. discloses in Fig. 3 that the display apparatus (10) of claim 7, and further discloses the display apparatus includes a substrate (210) on which the plurality of fibers (100) are disposed in the side by side arrangement.

With respect to claim 9, Roach et al. discloses in Fig. 5 that the display apparatus (10) of claim 6, and further discloses the display apparatus includes a plurality of the fibers (100) disposed as an array of essentially parallel fibers (100).

With respect to claim 13, Roach et al. discloses in Fig. 8 the plurality of fibers are arranged on a flexible substrate (370) (Col. 11, line 55).

With respect to claim 14, Roach et al. discloses the display apparatus of claim 6, and further discloses the fiber is substantially a polymer fiber [See col. 9, line 37].

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Kiryushev et al. (U.S. Patent 6,697,191).

With respect to claim 10, Roach et al. discloses in Fig. 2, the display apparatus (10) of claim 6, and further discloses the display apparatus includes a plurality of the fibers (100).

Roach et al. does not disclose the said fibers being disposed in a warp or weft of a fabric.

Kiryushev et al. discloses in Fig. 3, the fibers being disposed in a warp or weft (52) of a fabric (Col. 3, lines 66-67) in order to manufacture woven displays that are more flexible and robust than integral film displays (Col.1, lines 43-44).

It would have been obvious of one of ordinary skill in the art to combine the display fiber of Roach et al. and dispose the display fibers in a weft of the display material of Kiryushev et al. to form a display apparatus is more flexible and robust than integral film displays.

With respect to claim 12, Roach et al. in Fig. 2 discloses that the display apparatus (10) of claim 10. Roach et al. does not disclose the fabric being a textile.

Kiryushev et al. in Fig. 1 discloses that fabric is a textile [Col. 3, lines 62-67] in order to manufacture woven displays that are more flexible and robust than integral film displays.

It would have been obvious of one of ordinary skill in the art to incorporate the textile structure of Kiryushev et al. with the teachings of Roach et al. to form the display apparatus is more flexible and robust than integral film displays.

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10. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Topelberg et al. (U.S. Patent Application Publication 2003/0006693).

With respect to claim 11, Roach et al. discloses the display apparatus (10) of claim 6 characterized in that it further comprises a plurality of said fibers (100). Roach et al. does not disclose the fibers disposed as meandering fibers in a fabric.

Topelberg discloses in Fig. 1 the plurality of the fibers disposed as meandering fibers (12) in a fabric in order to produce woven displays that are more flexible and robust than integral film displays (para. 0002, lines 18-19).

It would have been obvious of one of ordinary skill in the art to form a display apparatus of Roach et al. that incorporates the display fibers as winding (meandering) fibers as given by Topelberg to produce woven displays that are more flexible and robust than integral film display.

11. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Singh et al. (U.S. Patent 6,259,838)

With respect to claim 13, Roach et al. discloses all the limitations of claim 8. Roach et al. does not disclose the substrate is a substantially flexible material.

Singh et al. discloses in Fig. 2, the substrate is a substantially flexible material in order to allow the display to be shaped, such as into a curved display (Col. 14, lines 14-17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the display apparatus of Roach et al. and incorporate the flexible substrate of Singh et al. to have a display that can be shaped, such as into a curved display.

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12. Claims 15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Barker (U.S. Patent 5,720,121).

Roach et al. discloses in Fig. 2-6 and 7A-7B a plurality of light emitting elements (150) disposed along a length of the fiber (100), a first and second plurality of conductors (224, 220) that run along the length of the fiber (see fig. 3), such that each light emitting element is coupled to a conductor of the first plurality of conductors (224) and a conductor of the second plurality of conductors (220), and a display driver (240) that is configured to drive the first and second plurality of conductors to cause selective light emitting elements to emit light (Col. 6, lines 20-29). Roach et al. does not disclose the fiber being used within an article of clothing.

Baker et al. discloses in Figs. 1-4, an article of clothing comprising a fiber (Col. 2, lines 5-14) in order to produce footwear that is very attractive and decorative (Col. 1, lines 21-25).

It would have been obvious of one of ordinary skill in the art to form a display apparatus of Roach et al. that can be used in footwear as taught by Barker to produce attractive and decorative footwear.

With respect to claim 18, the combination of Roach and Baker discloses the limitations of claim 15. Roach et al. further discloses at least on fiber (100) includes a plurality of fibers that are arranged in parallel (see Fig. 2).

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Barker (U.S. Patent 5,720,121) and Singh et al. (U.S. Patent 6,259,838).

With respect to claim 19, the combination of Roach et al. and Baker discloses the limitations of claim 18. The combination of Roach et al. and Baker does not disclose the plurality of fibers is arranged on a flexible substrate.

Singh et al. discloses in Fig. 2, the substrate is a substantially flexible material in order to allow the display to be shaped (Col. 14, lines 14-17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the article of clothing of Roach et al. and Baker and incorporate the flexible substrate of Singh et al. to have a display that can be shaped.

With respect to claim 20, the combination of Roach and Baker discloses the limitations of claim 15. Roach further discloses the fiber is substantially a polymer fiber [See col. 9, line 37].

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al. (U.S. Patent 6,274,978) in view of Barker (U.S. Patent 5,720,121) and Kiryushev et al. (U.S. Patent 6,697,191).

With respect to claim 16, Roach et al. and Barker discloses the limitations of claim 15, Kiryushev et al. discloses at least one of the fiber is disposed in a warf or weft of a fabric (Col. 3, lines 66-67) in order to manufacture woven displays that are more flexible and robust that integral film displays (Col.1 , lines 43-44).

It would have been obvious of one of ordinary skill in the art to combine the display fiber of Roach et al. and dispose the display fibers in a weft of the display material of Kiryushev et al. to form a display apparatus is more flexible and robust that integral film displays.

Allowable Subject Matter

15. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Applicant's Arguments

16. Applicant's arguments filed have been fully considered but they are not persuasive.

17. Applicant's arguments are as follows:

a. On page 9, lines 22-24, Applicant argues, Roach does not teach a fiber that includes intersecting row and column conductors that run along the length of the fiber, as claimed in each of the applicant's independent claims 1 and 6. Applicant further argues, illustrated in Roach's Gif. 2, the row conductors run perpendicular to the length of the fibers, and as illustrated in Roach's Fig. 3, each conductor is coupled to a light emitting element that is disposed along the length of each fiber. Roach's Fig. 5 also clearly illustrates that the light fibers are placed perpendicular to the row conductors.

b. On page 9, lines 30-33, Applicant argues, claims 1-2 and 5-9 are patentable under 35 U.S.C. 102(b) over Roach at least because Roach does not teach or suggest the fiber recited in each of the applicant's independent claims, having row and column conductors that run along the length of the fiber.

c. On page 10, lines 7-11, Applicant argues, claims 3, and 10-12 depends upon independent claim 1 or 6 and in these rejections, the Office action relies upon Roach for teaching the elements of claim 1 and 6. Applicant argues that Roach does not teach each of the elements of 1 and 6.

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18. Examiner responses are as follows:

a. In response to the Applicant's argument in (a), the interpretation of the claim is that the electrical conductor matrix runs along the length of the fiber. The claim is not claiming that the row and column conductors run along the length of the fiber. As illustrated by Roach et al. in Fig. 3, the electrical conductor matrix that has row conductors (220) and column conductors (224) runs along the length of the fiber. Claims 1 and 6 stand rejected as anticipated by Roach et al.

b. In response to the Applicant's argument in (b), as explained above the interpretation of the claim is that the electrical conductor matrix runs along the length of the fiber. The independent claims stand rejected by Roach et al. and claims 1-2 and 5-9 stand rejected.

c. In response to the Applicant's argument in (b), as explained above the interpretation of the claim is that the electrical conductor matrix runs along the length of the fiber. The independent claim stands rejected by Roach et al. and claims 3, and 10-12 stand rejected.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENITRA M. LEE whose telephone number is (571)270-7552. The examiner can normally be reached on Monday-Friday, 7:30 am - 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENITRA M. LEE/
Examiner, Art Unit 2889

/Karabi Guharay/
Primary Examiner, Art Unit 2889

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